

ABSTRACT

Catalyst and solid component of catalyst for the (co)polymerization of ethylene, comprising titanium, magnesium, chlorine, a protic organo-oxygenated compound D_p and a neutral aprotic electron-donor compound D, in the following molar ranges: Mg/Ti=1.0-50; D/Ti=1.0-15; Cl/Ti=6.0-100; D_p/D=0.05-3; and a process for obtaining said component comprising the following steps in succession: (a) formation of a mixture and dissolution, in said electron donor aprotic compound D, of a magnesium chloride and a titanium compound having formula (II): Ti^v(OR₃)_aX_(v-a) wherein each R₃ independently represents a hydrocarbyl or acyl radical having from 1 to 15 carbon atoms; each X is selected from chlorine, bromine or iodine; "v" has the value of 3 or 4, and "a" is a number varying from 0 to "v", with a molar ratio between titanium and magnesium ranging from 1/1 to 50/1; (b) partial separation of the compound D from said mixture prepared in step (a) until a residue is obtained, solid at room temperature, wherein the D/Ti ratio ranges from 1.5 to 40, (c) formation of a suspension of said solid organo-oxygenated protic compound D_p, in such a quantity that the molar ratio D_p/D ranges from 0.1 to 1.2 and maintaining the mixture until equilibrium is reached, to form the desired solid component of catalyst.